ABSTRACT

A client-server based Storage Area Network (SAN) management system
provides easy to use and uniform multiple user interfaces such as web interface and
windows interface to the administrators to manage the SAN consisting of various
types of devices. The integrated object-oriented management agent consists of
5   several components such as object manager, UI module, web server, user interface
modules, error and status handler and device handler. The agent functionality can be
dynamically expanded to handle new device types without stopping the existing
agent, installing new agent and restarting it. The management system uses
conglomerate methods to automatically discover SAN devices and their topology.
10 The error and status from SAN devices are handled in a hybrid method consisting of
distributed, hierarchical and centralized schemes. A simple and easy device
independent user interface is provided to download firmware to various types of
devices hiding complex device dependent processes from the administrator. The
system can manage multiple SANs. It can run on various environments such as an
15 appliance, host, in a cluster, or on a client station. Where reliability is required , it can
run on a fault tolerant system as well as multiple copies can be run simultaneously.

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